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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,186	07/09/2003	Hideki Hagiwara	393032038900	3003

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David L. Fehrman  
Morrison & Foerster LLP  
35th Floor  
555 W. 5th Street  
Los Angeles, CA 90013

EXAMINER

PENDLETON, BRIAN T

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/617,186

Applicant(s)

HAGIWARA, HIDEKI

Examiner

Brian T. Pendleton

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2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17 and 18 is/are allowed.
- 6) ☒ Claim(s) 1,2,7-10,15 and 16 is/are rejected.
- 7) ☒ Claim(s) 3-6 and 11-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 8-10, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Niimi, US Patent 6,084,974. In figure 13, Niimi discloses a digital signal processing device comprising a plurality of amplifiers 5, an inherent group arrangement process which groups channels Di1 – Din, and a group control process which controls amplification according to the maximum channel selected by selector 7. Claims 1, 15, and 16 are rejected. Regarding claim 8, the invention is directed toward compression therefore the amplification rate of the input channels are inherently decreased. Regarding claims 9 and 10, element 3 is a sample and hold unit.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niimi. Niimi does not disclose that the input channels are of a surround sound system having at least six input channels. Nonetheless, Examiner takes Official Notice that it was well known at the time of

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invention to implement compression in a surround sound system, which includes a left, right, center, left surround (rear), right surround, and low frequency effects channel and obvious to realize for the purpose of reducing the amplitude of the signals.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niimi in view of Stockham, Jr. et al, US Patent 5,848,171. Niimi does not teach a band separation process for separating the input channels into a plurality of frequency bands. Stockham, Jr. et al teach a system for compression which separates an input signal into a plurality of frequency bands using bandpass filters 16. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Niimi to have a plurality of bandpass filters and associated compression units, as taught by Stockham, Jr. et al, for the purpose of compressing the audio signals uniquely in each frequency band which increases the effectiveness.

***Allowable Subject Matter***

Claims 17 and 18 are allowed.

Claims 3-6, and 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose a visual symbol prompting a user to select the desired grouping of input channels for compression together in the group arrangement process, as required by independent claim 17, therefore it is allowed. In addition, the cited prior art does not disclose the specific grouping of input channels for group compression, as recited in claims 2-6.

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Finally, there is no teaching nor suggestion in the prior art of record of checking whether the maximum sound level of the each of the groups exceed a predetermined threshold and decreasing the amplification rate of the group when the signal level exceeds the threshold level, as required by claim 11.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (571) 272-7527.

The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Brian T. Pendleton  
Primary Examiner  
Art Unit 2615

btp